REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated September 19, 2007, has been received and its contents carefully reviewed.

Claims 1, 3, 6, 18, 24-28, 32-34, 36-37, and 42-43 are hereby amended. Claim 41 is hereby canceled without prejudice or disclaimer. Claims 44-50 are hereby added. No new matter has been added. Accordingly, claims 1-40 and 42-50 are currently pending. Reexamination and reconsideration of the pending claims are respectfully requested.

The Office Action objects to claims 24-28, 36-37, and 41 because of minor informalities. Applicants have amended claims 24-28 and 36-37, and canceled claim 41. Applicants submit that claims 24-28 and 36-37 now more clearly define the subject matter. Applicants, therefore, respectfully request withdrawal of the objection.

The Office Action rejects claims 25, 32-34, and 42-43 under 35 U.S.C. § 101. Applicants respectfully traverse the rejection. For the sole purpose of expediting prosecution, however, Applicants have amended claims 25, 32-34, and 42-43 to more clearly define the subject matter. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action rejects claims 27-28, 32-34, 38-40, and 43 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicants respectfully traverse the rejection.

"Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient

information regarding the subject matter of the claims as to enable one skilled in the pertinent art to make and use the claimed invention." M.P.E.P. § 2164.01. Claims 27-28, 32-34, 38-40, and 43 relate to the treatment of diseases, the method for preparing the medicament, and the composition for use treatment of diseases. Applicants submit that the specification sufficiently support this subject matter. For example, the specification provides "[t]he ***medicaments*** containing the ***compound (or compounds) (I)*** alone can be administered at doses which can be determined beforehand by means of ***routine experiments***, according in particular to the desired effect[, and t]hese doses may range, for example, from 0.1 to 200 mg per individual and per day, preferably from 1 to 50 mg." *Specification*, page 20 line 33, to page 21, line 3, emphases added. *See also Specification*, page 2, lines 10-32, and page 20, lines 15-31. Applicants, therefore, respectfully request withdrawal of the rejection.

The Office Action rejects claims 1-43 under 35 U.S.C. § 112, second paragraph, as being indefinite. Specifically, the Examiner states the phrases "for example", "preferably", and "such as" render the claims 1, 3, and 6 indefinite. Applicants have amended claims 1, 3, and 6 and added new dependent claims 47-49. Applicants submit that claims 1, 3, 6, and 47-49 now more clearly define the subject matter.

In addition, the Examiner states the citation of claim 18 is not clear and the structural formula for compound (IV) is missing. Applicants have amended claim 18 and added the structural formula for compound (IV). No new matter has been added, because the structural formula for compound (IV) was presented on page 59 of the specification. Applicants submit that claim 18 now more clearly define the subject matter.

The Examiner also states that claims 25, 32-34, and 42-43 do not set forth any steps involved in the method or process. Applicants have amended claims 25, 32-34, and 42-43 accordingly. Applicants submit that claims 25, 32-34, and 42-43 now more clearly define the subject matter.

Last, the Examiner states the term "excessive" in claim 32 is indefinite. Applicants have removed the phrase "in particular excessive activity" from claim 32. Applicants submit that claims 32 now more clearly define subject matter.

For each of the afore-mentioned reasons, Applicants respectfully request withdrawal of the 35 U.S.C. § 112, second paragraph, rejection.

The Office Action rejects claims 1-17 and 24-43 under 35 U.S.C. § 103(a) as being obvious over PCT Application Publication No. WO 97/03700 to Lortat-Jacob (hereafter "*Lortat-Jacob*") in view of Cytokine, 8(7): 557-566 (1996) (hereafter "*Cytokine*") and PCT Application Publication No. WO 93/19096 to Turnbull et al. (hereafter "*Turnbull*"). Claim 41 is canceled, so the rejection of claim 41 is moot. Applicants respectfully traverse the rejection of claims 1-17, 24-40, and 42-43.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggest by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). *Lortat-Jacob*, *Cytokine*, and *Turnbull*, either singularly or in combination, fail to teach or suggest all the elements of claims 1-17 and 24-43, and thus, can not render these claims obvious.

Independent claim 1 recites, *inter alia*, "molecules corresponding to formula (I)." Formula (I) has two oligosaccharide fragments A and B, which are placed on either side of the

spacer group X and have an arrangement that can be described as symmetrical with respect to the spacer group X. *Lortat-Jacob* fails to teach at least this feature of claim 1. In fact, the Office Action admits that "Lortat-Jacob [sic] et al do not exemplify a compound of instant formula (I) ... wherein the saccharide units on either side of the spacer group are symmetrical." *Office Action*, page 9, lines 12-15.

Cytokine fails to cure the deficiency in *Lortat-Jacob*. In fact, *Cytokine* is cited by the Examiner for disclosing γ-interferon and the role of heparan sulfate. *Turnbull* also fails to cure the deficiency in *Lortat-Jacob*. The Office Action states "Turnbull et al ... teaches that herapin or herapan sulfate with the complexity and heterogeneity with a large number of different disaccharide units may have different activities and have undesired side effects and would lack specificity in binding to growth factors on cell surfaces" and "[t]his means that the structure of the saccharide units in heparin or heparan sulfate should be same or uniform for reducing the side effects and increasing the beneficial activity." *Office Action*, page 10, lines 5-11. This analysis is fundamentally flawed. The text cited by the Office Action actually reads "[t]hese preparations would therefore be no more suitable for use as drugs than would be heparan sulphate itself or heparin, and whilst various fractionations and partial purifications of such oligosaccharide preparations or mixtures have been carried out in the course of experimental work, the lack of more detailed knowledge about the particular structural characteristics that provide high specific binding affinity for FGF growth factors has been a problem that has hindered development of more well defined oligosaccharide products or preparations having optimum efficiency and better suited for possible medical use as drugs or therapeutic agents." *Turnbull*, page 6, lines 7-18, emphasis. It is very clear that the above-cited text only describes

problems with respect to these oligosaccharide products and it does not offer any suggestion to make fragments A and B symmetrical, as suggested by the Examiner.

Furthermore, the glucosamine units of formula (I) set forth in claim 1 expressly contain no sulphate group at the 3-position. *Lortat-Jacob* fails to teach or suggest this specific formula. By precluding sulphate groups at the 3-position, formula (I) avoids the anticoagulant drawbacks associated with the prior art. *See* e.g., *Specification*, page 9, lines 24-29. *Lortat-Jacob* fails to teach or suggest the specific formula of claim 1. It also fails to recognize the very purpose of avoiding a sulphate group at the 3-position of the glucosamine unit. In fact, *Lortat-Jacob* not only fails to recognize that a sulphate group at the 3-position is predominantly responsible for the anticoagulant activity of heparin, it actually discloses adding anionic groupings (sulphate, phosphate) in a sufficient quantity on the biocompatible polymers. *See Lortat-Jacob*, page 11, lines 16-18. Again, *Cytokine* and *Turnbull* fail to cure the deficiency in *Lortat-Jacob*.

Accordingly, claim 1 is allowable over the combined teaching of *Lortat-Jacob*, *Cytokine*, and *Turnbull*. Claims 2-17, 24-40, and 42-43, which variously depend from claim 1, are also allowable for at least the same reasons. Applicants, therefore, respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1-17 and 24-43.

The application is in condition for allowance. Early and favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

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